



# GRASS IDENTIFICATION MANUAL

*Buffalograss*

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## INTRODUCTION

The grass species contained in this manual are ones which are recommended for planting by Department personnel.

The majority are native grass species.

However, there are some introduced species which are valuable as nurse crops until the native species become established. *The Practical Guide to the Establishment of Vegetative Cover* should be consulted for seeding rates.

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# Native Grass Species





## BLACK GRAMA

(*Bouteloua eriopoda*)

Native ♦ Warm-season  
Perennial ♦ Bunchgrass



Black grama is a native, warm-season perennial bunchgrass which produces a seedhead from June through October. It forms a weak sod by rooting at the nodes of the slender stems allowing Black grama to perpetuate itself. Normally, it is a very poor seed producer. Seed should be planted no deeper than 1/2 in. and no later than Aug. 1. Typically found from south-central Texas, into the Panhandle and into West Texas. It works well on dry slopes and plains. Height is 1-2' tall.



## BLUE GRAMA

(*Bouteloua gracilis*)

Native ♦ Warm-season  
Perennial ♦ Shortgrass



Blue grama is a native, perennial, warm-season, shortgrass with narrow leaves three to six inches long that form a curly mass of bunchy sod. It grows erect and reproduces only by seed. Blue grama is a short species which typically grows only from 10 to 20 inches high. The mature seedhead usually forms a curve which resembles the human eyebrow. This grass is widely adapted to different soil types including alkaline soils and withstands extreme drought conditions. Blue grama will decrease when mowed below three inches during the growing season.



## BUFFALOGRASS

(*Buchloe dactyloides*)

Native ♦ Warm-season

Perennial ♦ Sod-forming ♦ Shortgrass



Buffalograss is a native, perennial, warm-season, sod-forming short-grass that reproduces by seed and vigorous surface runners which root at the joints. The plants are seldom more than five inches tall. It withstands close mowing well, however, it is more vigorous when mowed higher than three inches. Because of its excellent ground cover, aggressive spread under use, wide climate adaptation and relative ease of establishment (seed and re-vegetation by use of sod pieces), buffalograss is ideally suited for erosion control where the soil does not contain too much sand.



## GREEN SPRANGLETOP

(*Leptochloa dubia*)

Native ♦ Warm-season

Tufted Perennial ♦ Bunchgrass



Green sprangletop is a native, warm season, tufted perennial bunch-grass with a firm base without stolons or rhizomes. It produces a seed head during May to November. This species serves as a nurse grass for all the other warm-season perennial seed species. Its primary purpose is to provide initial erosion control stabilization and cover and to modify the seedbed so that the other species can grow and flourish. Normally, it exists for only two growing seasons. It also has very good drought tolerance.





## INDIANGRASS

(*Sorghastrum avenaceum*)

Native ♦ Warm-season  
Perennial ♦ Bunchgrass



Indiangrass is a native, warm season, perennial bunchgrass which spreads both from seed and from short underground rhizomes. The beautiful golden plume-like seed heads, four to 12 inches long are on stems from four to eight feet tall. Indiangrass may form patches of sod and occur in bunches. The vigorous seedlings endure a wider range of extremes as regards to drouth than most lowland species. It readily establishes in disturbed sites. Mowing closer than five inches will decrease this species.



## LITTLE BLUESTEM

(*Schizachyrium scoparium*)

Native ♦ Warm-season  
Perennial ♦ Bunchgrass



Little bluestem is a native, warm-season, perennial bunchgrass which grows from two to four feet tall. It produces a seedhead from August to December and is tolerant to a wide range of sandy to clayey soils with adequate soil moisture. This species has moderate drought tolerance and will decrease with heavy mowing. Seed furnished should be of Texas origin only.





## PLAINS BRISTLEGRASS

(*Setaria macrostachya*)

Native ♦ Warm-season ♦ Bunchgrass



Plains bristlegrass is a native, warm-season bunchgrass which normally displays a pale green color. It grows one to four feet tall on sandy to medium-textured soils. This grass does not usually occur in large dense stands and is short-lived. It is usually associated with mesquite, gravelly washes and disturbed sandy areas. A seed head is produced from May to November.



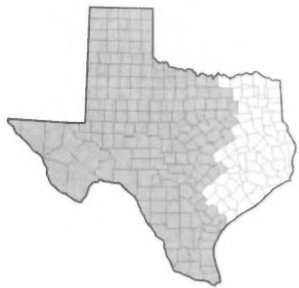
## SAND BLUESTEM

(*Andropogon hallii*)

Native ♦ Warm-season  
Perennial ♦ Bunchgrass



Sand bluestem is a native, warm-season perennial bunchgrass which spreads by seed and rhizomes. This fine, tall-growing grass produces seed in August to October on seed stems three to eight feet tall. It often forms dense colonies 15 to 20 feet across and grows best on loam to sandy soils. This is an excellent grass species for the more arid portions of the state. It can also withstand closer mowing than some of the other bunchgrasses.



## SAND DROPSEED

(*Sporobolus cryptandrus*)

Native ♦ Warm-season  
Perennial ♦ Bunchgrass



Sand dropseed is a native, warm-season perennial bunchgrass that grows in rather small tufts or bunches. It spreads from seed and the old bunches increase in size by tillering. Growth begins in early spring and seed heads appear about September on stems one to three feet tall. Sand dropseed is found growing on sandy open soils and moves quickly on disturbed soils. The hard seed ordinarily does not germinate unless scarified or treated by acid to make the seed coat permeable.



## SAND LOVEGRASS

(*Eragrostis trichodes*)

Native ♦ Warm-season  
Perennial ♦ Bunchgrass



Sand lovegrass is a tall, leafy, warm-season, perennial, native bunchgrass. It reproduces by seed and the old bunches increase in size by tillering and sometimes rooting at the nodes of base stems. This grass produces a dense, deep root system and bears seed on stems two to five feet tall in early fall. It grows best on sandy soils but can often be found on heavier soils. This species decreases rapidly when mowed closer than five inches.





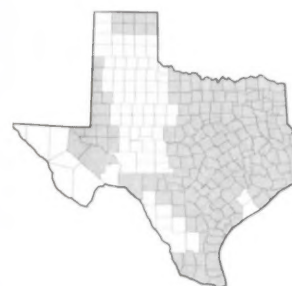
## SIDEOATS GRAMA

(*Bouteloua curtipendula*)

Native ♦ Warm-season  
Perennial ♦ Mid-grass



Sideoats grama is a native, warm-season perennial, mid-grass with short scaly underground stems (rhizomes). Growth begins in early April and the seed stalks which appear from July to September are from 18 to 36 inches in height. The small oatlike seeds hang down uniformly on one side of the seed stem as indicated by the name sideoats. Sideoats is the most widely distributed of the grama grasses and grows on well-drained uplands, shallow ridges, and rocky areas, but may be found on soils ranging from deep to very shallow. This species will gradually decrease if mowed closer than two to three inches during the growing season. Sideoats grama is the state grass of Texas.



## SWITCHGRASS

(*Panicum virgatum*)

Native ♦ Warm-season  
Sod-forming ♦ Perennial ♦ Tall grass



Switchgrass is a native, warm-season, perennial, sod-forming tall grass which grows in large or small clumps. It has vigorous roots and reproduces from rhizomes and seed. Switchgrass has rather small seed with a sprangled-type seed head, on stalks three to six feet tall. It is best adapted to lower areas of moist soils, but is winter hardy and drouth-resistant. This species is usually seeded in mixtures with bluestems, Indiangrass and sideoats grama. It decreases under heavy mowing closer than five inches.



## WESTERN WHEATGRASS

(*Agropyron smithii*)

Native ♦ Cool-season  
Sod-forming ♦ Perennial



Western wheatgrass is a native, cool-season, perennial, sod-forming grass, which reproduces from rhizomes and seed. Growing in clumps, it starts growth in early fall, remaining green during winter, and makes its maximum growth in the spring. This grass produces seed in June and goes dormant in mid-summer. It reaches a height of one to three feet and, because of its bluish-colored stems and leaves, it is often called bluestem wheatgrass. Western wheatgrass does best on low areas of heavy soils where runoff water accumulates. It spreads slowly and cannot thrive under heavy mowing operations. This species is tolerant of moderately severe droughts and has strong cold hardiness.

# Introduced Grass Species





## BAHIAGRASS

(*Paspalum notatum*)

Introduced ♦ Warm-season  
Perennial ♦ Tufted ♦ Bunchgrass



Bahiagrass is an introduced, warm-season, dense, tufted, perennial bunchgrass that grows from one to two and-a-half feet tall. Its stems produce two or three-forked terminal seed heads with flat, shiny-appearing spikelets. Bahiagrass reproduces by seed and spreads by short, heavy runners. It forms a dense, tough sod even on droughty, sandy soils. This species is adaptive to both heavy clay and sandy soils.



## BERMUDAGRASS

(*Cynodon dactylon*)

Introduced ♦ Warm-season  
Perennial ♦ Sod-forming ♦ Turf grass



Bermudagrass is an introduced, warm-season, perennial, sod-forming turf grass which spreads by seed, runners and rhizomes. Spreading habits of this grass may vary from a few inches to three or four feet. The slender, spike flowering heads, three to eight in a cluster, grow from six to 12 inches high, depending on soil and moisture conditions. It is an excellent all-around turf grass which grows throughout Texas on any moderately well-drained soil, whether acid or alkaline, provided adequate moisture and food are present.





## BUFFELGRASS

(*Cenchrus ciliaris*)

Introduced ♦ Warm-season  
Perennial ♦ Bunchgrass



Buffelgrass is an introduced, warm-season, perennial bunchgrass common on sandy soils and semi-disturbed sites in the South Texas area. Easily established and vigorous growing, it spreads by short rhizomes and reproduces by seeds. Slender, leafy stems, up to four feet in height, grow from a large, knotted crown. The seed head, one to four inches long, is a cluster of slender, purplish, bristle-covered seed that are similar to an immature grassbur seed. Buffelgrass is not adapted where winter temperatures are as low as minus three to five degrees Fahrenheit.



## CRIMSON CLOVER

(*Trifolium incarnatum*)

Introduced ♦ Cool-season  
Annual ♦ Legume



Crimson clover is an introduced, cool-season, annual legume used for temporary erosion control. It grows to a height of one to three feet and has numerous hairy stems which branch from the base. Each stem has a cylindrical, long-pointed flower head composed of crimson-colored florets. This legume will grow on almost all fertile, well-drained soils, ranging from sands to heavy clays and varying in acidity and alkalinity. It prefers cool, humid weather and requires 35 inches or more of rainfall.





## K. R. BLUESTEM

(*Bothriochloa ischaemum*)

Introduced ♦ Warm-season  
Perennial ♦ Bunchgrass



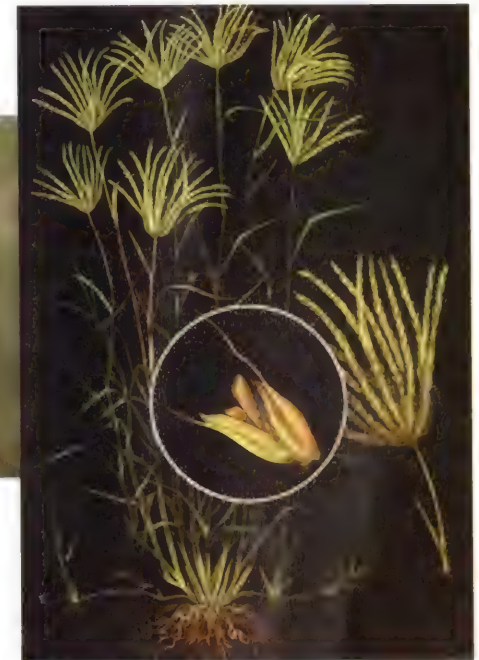
K. R. Bluestem is an introduced, warm-season, perennial bunchgrass which is leafy and deep-rooted. It grows as much as four feet high with stems which tend to grow outward from the base then up forming a saucer-shaped bunch. This freely branching grass has long silky hair on the upperside of the blade, thicker near the collar, which distinguish it from other strains or varieties. It prefers medium fine-textured soils but has done well on sandy sites.



## RHODESGRASS

(*Chloris guyana*)

Introduced ♦ Warm-season  
Perennial ♦ Bunchgrass



Rhodesgrass is an introduced, erect, fine-stemmed, perennial bunchgrass which grows to a height of three to five feet. It reproduces by seed and spreads by runners two to three feet long that root at each joint or node. The spreading palm-like seed head is made up of 10 to 20 individual fingers or spikes. It also has a strong fibrous root system which will penetrate loose soil from 10 to 12 feet under favorable growing conditions. This species prefers fairly moist, deep, rich loam and clay soils, but makes excellent growth on poor, deep, sandy soils if properly fertilized with nitrogen and phosphate. When well established, Rhodesgrass is rather drouth resistant.



## TALL FESCUE

(*Festuca arundinacea*)

Introduced ♦ Cool-season  
Perennial ♦ Bunchgrass



Tall fescue is an introduced, cool season, aggressive, perennial bunchgrass which grows to a height of three to four and-a-half feet. This plant has short creeping rootstocks which, in older stands, develop a uniform, thick sod. Its bright green foliage remains green throughout the growing season. The heavy fibrous root system penetrates the soil as much as five feet making good use of sub-soil moisture. Tall fescue is adapted to a wide variety of soils including poorly drained areas.



## YELLOW SWEETCLOVER

(*Melilotus officinalis*)

Introduced ♦ Cool-season  
Biennial ♦ Legume



Yellow sweetclover is an introduced, cool-season, biennial legume used for temporary erosion control. The well-branched stems can grow from two to three feet tall. The small, yellow, pea-like flowers appear in late spring or early summer and it is especially lush growing on blackland soils derived from limestone. This legume tends to be tolerant of all soil textures and to soils varying from strongly alkaline to weakly acidic. It tends to be cold and drought tolerant. Strongly taprooted and contains nitrogen-fixing nodules.





**OATS**  
(*Avena sativa*)  
**BARLEY**  
(*Hordeum vulgare*)  
Introduced ♦ Cool-season  
Annual ♦ Bunchgrasses



Oats are an introduced, cool-season, annual bunchgrass used for temporary erosion control. Flowering period is mostly from March to June for Oats but occasionally during the winter months.

Barley is an introduced, cool-season, annual bunchgrass used for temporary erosion control. Its flowering period is mostly April to June.



**WHEAT**  
(*Triticum aestivum*)  
Introduced ♦ Cool-season  
Annual ♦ Bunchgrass



Wheat is an introduced, cool-season, annual bunchgrass which reproduces each year from seed. This grass reaches heights of two and-a-half to three feet. It is used for temporary erosion control. The flowering period is mostly March to May.

## ☞ GLOSSARY ☞

<b>Annual</b>	Lasting only one year or season.
<b>Biennial</b>	Growing vegetatively during first year and fruiting and dying during the second.
<b>Cool-season</b>	Plants which make all or most of their growth in the late fall, winter or early spring.
<b>Introduced</b>	Plants which have been brought in from outside North America.
<b>Native</b>	Plants which originated in North America.
<b>Node</b>	A point on a stem at which a leaf or leaves are inserted.
<b>Perennial</b>	Lasting for more than one year.
<b>Rhizome</b>	Underground stem which will take root at the joints.
<b>Stolon</b>	Above ground runners which take root at the joints forming new plants.
<b>Tillering</b>	Sprouting from the base of a plant.
<b>Warm-season</b>	Plants which make their active growth during the frost-free period and develop seed in summer or early fall.



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